

AMENDMENTS TO THE CLAIMS

CLAIM 1 (CURRENTLY AMENDED): A bicycle electrical control circuit that provides power and control signals to a plurality of bicycle components, wherein the circuit comprises:  
a power circuit that provides a power signal for the plurality of bicycle components;  
a control circuit that provides a control signal that controls the operation of at least one of the plurality of bicycle components other than powering the at least one of the plurality of bicycle components;

wherein the power circuit and the control circuit together comprise a power/control circuit that provides a composite signal having the power signal and the control signal; and

a power stabilizing circuit coupled to the ~~power~~ power/control circuit, wherein the power stabilizing circuit stabilizes power provided from the composite signal to at least one of the plurality of bicycle components.

CLAIM 2 (ORIGINAL): The circuit according to claim 1 wherein the control signal has a pulse component.

CLAIM 3 (ORIGINAL): The circuit according to claim 2 wherein the control signal has an ON component and an OFF component.

CLAIM 4 (ORIGINAL): The circuit according to claim 1 wherein the power stabilizing circuit stabilizes a voltage provided to the at least one of the plurality of bicycle components.

CLAIM 5 (ORIGINAL): The circuit according to claim 1 wherein the power stabilizing circuit comprises a capacitor.

CLAIM 6 (CURRENTLY AMENDED): The circuit according to claim 5 wherein the power stabilizing circuit further comprises a diode coupled to prevent reverse current to the ~~power~~ power/control circuit.

CLAIM 7 (ORIGINAL): The circuit according to claim 1 wherein the power circuit is structured to provide power derived from an alternating current source.

CLAIM 8 (ORIGINAL): The circuit according to claim 7 wherein the power circuit is structured to provide power from a dynamo hub mounted to one of a front wheel or a rear wheel of the bicycle.

CLAIM 9 (ORIGINAL): The circuit according to claim 1 wherein the power circuit is structured to provide power derived from a direct current source.

CLAIM 10 (ORIGINAL): The circuit according to claim 9 wherein the power circuit is structured to provide power derived from a battery.

CLAIM 11 (CANCELED).

CLAIM 12 (PREVIOUSLY PRESENTED): The circuit according to claim 1 wherein the control signal has a pulse component.

CLAIM 13 (ORIGINAL): The circuit according to claim 12 wherein the control signal has an ON component and an OFF component.

CLAIM 14 (PREVIOUSLY PRESENTED): The circuit according to claim 13 wherein the plurality of bicycle components comprises a first electrical component and a second electrical component, wherein the first electrical component is controlled by the control signal, and wherein the second electrical component is not controlled by the control signal but receives the composite signal.

CLAIM 15 (ORIGINAL): The circuit according to claim 14 wherein the power stabilizing circuit stabilizes the power provided from the power signal to the second electrical component.

CLAIM 16 (ORIGINAL): The circuit according to claim 15 wherein the first electrical component comprises a liquid crystal display component structured to display various data, and wherein the second electrical component comprises a backlight that illuminates the liquid crystal display component.

CLAIM 17 (ORIGINAL): The circuit according to claim 15 wherein the first electrical component comprises a gear shift driving component that drives a gear shift mechanism having a plurality of gear ratios.

CLAIM 18 (ORIGINAL): The circuit according to claim 17 wherein the second electrical component comprises a light.

CLAIM 19 (ORIGINAL): The circuit according to claim 15 wherein the power stabilizing circuit stabilizes a voltage provided to the second component.

CLAIM 20 (ORIGINAL): The circuit according to claim 19 wherein the power stabilizing circuit comprises a power storage device coupled in parallel with the second electrical component.

CLAIM 21 (ORIGINAL): The circuit according to claim 20 wherein the power storage device comprises a capacitor.

CLAIM 22 (ORIGINAL): The circuit according to claim 20 wherein the power stabilizing circuit further comprises a diode coupled to prevent reverse current to the power/control circuit.

CLAIM 23 (PREVIOUSLY PRESENTED): The circuit according to claim 1 wherein the power stabilizing circuit stabilizes power provided from the composite signal to at least one of the plurality of bicycle components that also receives the control signal to reduce operating effects of the control signal on powering of that bicycle component.

CLAIM 24 (PREVIOUSLY PRESENTED): The circuit according to claim 23 wherein the at least one of the plurality of bicycle components that also receives the control signal is not controlled by the control signal.

CLAIM 25 (NEW): The circuit according to claim 14 wherein the power stabilizing circuit stabilizes the power provided from the power signal to the second electrical component but not to the first electrical component.

CLAIM 26 (NEW): The circuit according to claim 1 wherein the control signal is a speed indicating signal.

CLAIM 27 (NEW): The circuit according to claim 26 wherein the control circuit includes a waveform shaping circuit that derives the speed indicating signal from the output of an alternating current generator.